

**Abstract**

A level of automated adjustment of system organization parameters in a wireless communication system is provided by determining the parameter settings using a characterization of signal propagation of the system's coverage area. This 5 characterization is based on measurements of path loss-related characteristics by the system's base stations and wireless terminals operating throughout the coverage area. An exemplary path loss-related characteristic is path loss as determined by measuring received signal strength (RSS) at wireless terminals based on signals transmitted at known powers by a plurality of the system's base stations. It is possible for the wireless 10 terminals to take measurements while operating in the coverage area, whether idle or during communication with the system, and for such terminals to be associated with the system's subscribers. A resulting characterization of signal propagation in the coverage area based on the measured path loss-related characteristic can then be used to determine a variety of parameter settings including base station transmission power settings, 15 wireless terminal access parameters, neighbor lists, sets of base stations that can reuse channels and base station transmission power settings when base stations are added to or removed from the system.